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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,190	02/02/2004	Stephane Bertaux	MERCK-2826	3655

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MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
2200 CLARENDON BLVD.  
SUITE 1400  
ARLINGTON, VA 22201

EXAMINER

MANLOVE, SHALIE A

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/768,190

Applicant(s)

BERTAUX ET AL.

Examiner

Shalie A. Manlove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9-21 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 6, 8, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/2/2004, 6/4/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1, and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The term "light" in claim 1 is a relative term, which renders the claim indefinite. The term "light" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What is meant by light?

4. Claim 4 recites the limitation "wherein the substrate is a platelet-shaped, spherical or needle-shaped substrate" in line 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-3, 5, 7, 10, 14, 20-21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1,116,257.

With respect to claim 1, GB'257 teaches a substrate and at least one absorbing layer of a chalcogenide (p. 2, lines 51-55).

As to claim 2, GB'257 teaches the chalcogenide is a metal chalcogenide with the metal selected from cobalt, lead, mercury, manganese, cadmium, arsenic, antimony, nickel, iron, copper, bismuth or tin (p. 3, lines 10-32).

As to claims 3 and 4, GB'257 teaches the pigment comprises platelet-shaped or flakes and spherical substrates (examples 14-20; p.1, lines 20-25).

As to claim 5, GB'257 teaches the pigment comprises platelet-shaped mica or glass (p. 1, lines 20-25; examples 14, 17 and 18).

As to claim 7, GB'257 teaches in examples 15 and 19, the substrate to be coated or uncoated SiO<sub>2</sub> spheres.

As to claim 10, GB'257 teaches the light absorbing layer to be a sulfide, zinc sulfide (p. 3, lines 9-13).

As to claims 14, 20-21, GB'257 teaches a process of making the pigment comprising depositing Zinc sulfide on the substrate (p. 5, lines 100-114).

As to claim 24, GB'257 teaches in example 20 the process of making a pigment comprising precipitating zinc sulfide and cadmium chloride to a suspension of the substrate then drying the layer (p. 5 lines 31-42 and example 20)

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Claims 1-5, 9-20 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmid et al US 5,401,306.

With respect to claim 1, Schmid teaches a luster pigment based on silicatic or metallic substrates wherein the coating comprises a metal sulfide (abstract).

As to claim 2, Schmid teaches the chalcogenide is a metal chalcogenide with the metals selected from cobalt, chromium, tungsten, nickel, iron, or molybdenum (col. 3, lines 12-21).

As to claims 3 and 4, Schmid teaches the pigment comprises platelet-shaped silicatic or metallic substrates (abstract and examples).

As to claim 5, Schmid teaches the pigment comprises platelet-shaped mica or aluminum (see examples 1-9).

As to claim 9, Schmid teaches an aluminum substrate passivated by inorganic treatment (col. 2, lines 33-65)

As to claim 10, Schmid teaches the absorbing layer to be a sulfide, molybdenum sulfide (col. 3, lines 42-46).

As to claim 11, Schmid teaches the thickness of the absorbing layer is from 5 to 500 nm (col. 3, lines 29-30).

As to claims 12 and 13, Schmid teaches the pigment to be coated additionally with a topcoat. Examples are titanium dioxide iron (III) oxide zirconium dioxide and mixtures thereof (col. 4, lines 33-40; col. 6, lines 15-18).

As to claims 14-20, Schmid teaches a process of making the pigment comprising depositing a metal oxide layer on to the substrate in the presence of an inert gas such as nitrogen or argon and subsequently converting the oxide into a chalcogenide by reaction with sulfur

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vapor. The process is carried out in a heatable fluidized -bed (col. 2, lines 3-20; col. 4, lines 46-  
col. 5, 60; col. 5, lines 10-14 and examples 1-9).

As to claims 25-27, Schmid teaches the pigment has applications in forgery proof documents, securities, paints, printing inks, plastics, glasses, and cosmetics (col. 6, lines 50-57).

### ***Allowable Subject Matter***

6. Claims 6, 8, and 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to teach the material as claimed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (571) 272-1372. The examiner can normally be reached on M-TH 6:30-4:30 pm.

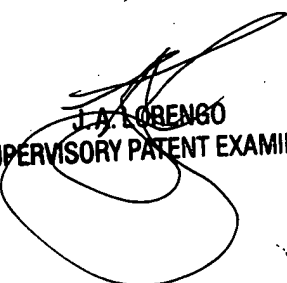
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shalie A. Manlove  
Examiner  
Art Unit 1755

June 11, 2005

  
J.A. LORENZO  
SUPERVISORY PATENT EXAMINER